

**REMARKS**

***Summary of the Amendment***

Upon entry of the present Amendment, Claims 8-11 will have been amended; and new Claims 12-14 will have been added. Accordingly, Claims 8-14 will be pending upon entry of the amendment. By the present Amendment and Remarks, Applicant submits that all outstanding rejections have been overcome, and respectfully requests the Examiner's indication that the subject application is now in condition for allowance.

***Request for Telephone Interview before Disposition of Next Office Action***

Pursuant to 37 CFR 1.560, Applicant's Representative respectfully requests to schedule a telephone interview before disposition of the next Office Action. Therefore, it is requested that before the subject case is ready to be examined by the Examiner, that a courtesy call be made to the Applicant's Representative (see signature block below for phone number) so that an interview may be scheduled and so that both parties may have ample time to prepare for the interview.

***Traversal of Rejection under 35 U.S.C. § 103(a)***

**TATEKI in view of FUKASAWA:**

Applicant respectfully traverses the rejection of Claims 8-9 and 11 under 35 U.S.C. § 103(a) as being unpatentable over JP Publication No. 09-181340 to TATEKI in view of U.S. Patent Publication No. 2005/0162995 to FUKASAWA.

As best understood, the Examiner contends that TATEKI teaches all features recited in independent Claim 8, except “ . . . wherein the shape of a spot of the luminous flux received by the position detecting photodetector has a pattern to satisfy the following relations:  $L_1/L_2 > 3$  and  $L_1 > 2^{1/2}D$ , where  $L_1$  represents the length of the major axis of the linearly elongated spot shape,  $L_2$  represents the length of the minor axis of the linearly elongated spot shape, and  $D$  represents the width of the parting lines, and wherein the

parting lines intersect with the major axis of the linearly elongated spot shape at an angle.”

Then the Examiner contends that FUKASAWA teaches the shape of a luminous flux received by a position detecting photodetector which had a pattern that satisfies the above-noted features from Claim 8.

Further, the Examiner contends that it would have been obvious to a system of the shape of a luminous flux as taught by FUKASAWA into the TATEKI optical system so that the position detecting photodetector could have a pattern that satisfies the relation  $L1/L2>3$  and  $L1>2^{1/2}D$  and such that the parting lines could intersect with the major axis of the linearly elongated spot shape at an angle.

Furthermore, the Examiner also submits that the features recited in dependent Claim 9 are disclosed by FUKASAWA and that TATEKI teaches the features recited in dependent Claim 11.

*Independent Claim 8 (and Dependent Claims 9 and 11):*

Applicant’s independent Claim 8 as amended recites, *inter alia*, . . . a filter unit configured to receive and guide a luminous flux emitted from the partner device onto the position detecting photodetector and converting the shape of the luminous flux into a predetermined shape on the position detecting photodetector, wherein the predetermined shape satisfies the following relations:  $L1/L2>3$  and  $L1>2^{1/2}D$ , where L1 represents the length of the predetermined shape in the direction of the major axis, L2 represents the length of the predetermined shape in the direction of the minor axis, and D represents the width of the parting lines, and wherein the parting lines intersect with the major axis in the predetermined shape.

Applicant respectfully submits that neither FUKASAWA nor TATEKI, whether considered individually or in proper combination, teach or suggest the aforementioned features recited in Claim 8 of the present invention.

One aspect of the present invention is that it provides an advantage of reducing an amount of a disparity of an optical axis from the partner device. On the other hand, the manner is which the Examiner proposes to combine FUKASAWA and TATEKI still

does not appear to provided the same advantage of reducing an amount of a disparity of an optical axis from the partner device.

In particular, FUKASAWA discloses a luminous flux of an elongated shape which can be considered a focused state. For instance, FUKASAWA is described in the specification as follows: “FIG. 2A to 2C show together a beam spot in each light-detecting surface of a main-beam photodetector provided in the optical system of the conventional optical pickup device, in which FIG. 2A shows a beam spot formed when the objective lens is close to the optical disk, FIG. 2B shows a beam spot formed when the objective lens is in the in-focus position and FIG. 2C shows a beam spot formed when the objective lens is apart from the optical disk.” As the above description shows, a focused state, namely a position in a direction of an optical axis, is detected, according to FUKASAWA.

Furthermore, according to the invention of FUKASAWA, as the shape of a luminous flux formed on a photodetector varies depending on a focused state, the shape is not always elongated. In that respect, the shape of the luminous flux of FUKASAWA does not satisfy the relation of Claim 8, and thus FUKASAWA does not provide the advantage of reducing an amount of a disparity of an optical axis from the partner device.

Moreover, TATEKI shows in Fig. 1 that a laser beam LB enters a light receiving unit for position detection 22 through a unit for deflecting optical axis 20 and hologram 21. The laser beam enters the light receiving unit for position detection through the hologram such that the laser beam is divided into a plurality of beams, which are guided onto the light receiving unit for position detection. However, TATEKI fails to teach or suggest the predetermined shape and the relation recited in independent Claim 8.

In view of the foregoing, the object of the invention of FUKASAWA is to detect a position in a direction of an optical axis (focusing adjustment), while that of the invention of TATEKI is to align a position in a direction perpendicular to an optical axis. It would not be easy for a person skilled in the art to combine these two references, considering that their objectives totally differ from each other, and moreover, appear to teach away from each other. That is to say, there appears to be no proper motivation or reason to combine FUKASAWA and TATEKI as is proposed by the Examiner.

Accordingly, Applicant respectfully submits that no proper combination of FUKASAWA and TATEKI discloses or suggests at least the above noted features of the present invention, and thus a rejection of at least independent Claim 8 under 35 U.S.C. § 103(a) appears to be improper.

Applicant further submits that new dependent Claims 9 and 11 are also allowable at least for the reason that these claims depend from allowable independent Claim 8 and further recite additional features that further define the present invention.

**TATEKI in view of FUKASAWA and KOWARZ:**

Applicant respectfully traverses the rejection of Claim 10 under 35 U.S.C. § 103(a) as being unpatentable over TATEKI as modified by FUKASAWA as applied to Claim 8 above, and further in view of U.S. Patent Publication No. 2004/009050599 A1 to KOWARZ.

Here, the Examiner admits that TATEKI and FUKASAWA, as applied to Claim 8, fails to teach a cross pattern filter. Then the Examiner submits that KOWARZ teaches a cross pattern filter (160) and that it would have been obvious to incorporate a cross pattern filter as taught by KOWARZ in the transmission system of TATEKI as modified by FUKASAWA so that the cross pattern can be formed by a cross pattern filter.

**Dependent Claim 10:**

Applicant submits that dependent Claim 10 is also allowable at least for the reason that Claim 10 depends from allowable independent Claim 8 and further recites additional features that further define the present invention.

**New Claims 12-14 are Allowable**

Applicant submits that new dependent Claim 12 is also allowable at least for the reason that Claim 12 depends from allowable independent Claim 8 and further recites additional features that further define the present invention.

Moreover, Applicant respectfully submits that new Claims 13 and 14 are allowable for similar reasons discussed above. In particular, Applicant's new

independent Claim 13 as amended recites, *inter alia*, a filter configured to guide the luminous flux emitted from the partner device to the sensor, wherein the filter converts the shape of the luminous flux on the light receiving surface of the sensor into a predetermined shape, wherein the predetermined shape satisfies the relationship  $L1/L2>3$  and  $L1>2^{1/2}D$ , where L1 represents the length of the predetermined shape in a direction of a major axis, L2 represents the length of the predetermined shape in a direction of a minor axis, and D represents a width of the parting lines.

Applicant submits that neither FUKASAWA nor TATEKI, whether considered individually or in proper combination, teach or suggest the aforementioned features recited in independent Claim 13 of the present invention.

And additionally, Applicant submits that new dependent Claim 14 is also allowable at least for the reason that Claim 14 depends from allowable independent Claim 13 and further recites additional features that further define the present invention.

***Application is Allowable***

Applicant respectfully submits that each and every pending claim of the present invention meets the requirements for patentability, and respectfully requests the Examiner to indicate in the next Office Action that the subject application is now in condition for allowance.

**CONCLUSION**

Applicant respectfully submits that each and every pending claim of the present application meets the requirement for patentability, and respectfully requests that the Examiner indicate that the subject application is now in condition for allowance.

Further, any amendments to the claims which have been made in this response and which have not been made specifically to overcome a rejection based on the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should there be any questions or comments, the Examiner is invited to contact the undersigned at the below-listed telephone number.

Further, the Commissioner is authorized to charge Deposit Account No. 502456 for any additional fees incurred pertaining to this response.

Respectfully submitted,

/ Michael D. Nornberg /

Date: \_\_\_\_\_

By: \_\_\_\_\_

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